

SIDNEY **TOWNSHIP**
(Batawa)

**water pollution
control plant**

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ONTARIO WATER RESOURCES COMMISSION
OFFICE OF THE GENERAL MANAGER

Members of the Sidney Township (Batawa)
Local Advisory Committee,
Township of Sidney.

Gentlemen:

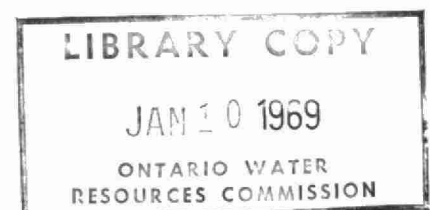
We are happy to present you with the 1967 Operating Summary for the
Sidney Township (Batawa) Water Pollution Control Plant, OWRC Project
No. 2-0121-62.

Your co-operation with our staff throughout the year has been appreciated.
Only with such co-operation can the war against water pollution be waged
effectively.

Yours very truly,

A handwritten signature in dark ink, appearing to read "D. S. Caverly".

D. S. Caverly,
General Manager.





ONTARIO WATER RESOURCES COMMISSION

801 BAY STREET
TORONTO 5

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J. H. H. ROOT, M.P.P.
VICE-CHAIRMAN

D. S. CAVERLY
GENERAL MANAGER
W. S. MACDONNELL
COMMISSION SECRETARY

General Manager,
Ontario Water Resources Commission.

Dear Sir:

I am pleased to submit to you the 1967 Operating Summary for the Sidney Township (Batawa) Water Pollution Control Plant, OWRC Project No. 2-0121-62.

The summary reviews progress during the year, outlines operating problems encountered and summarizes in graphs, charts and tables all significant flow and cost data.

Yours very truly,

A handwritten signature in cursive script, reading "D. A. McTavish".

D. A. McTavish, P. Eng.,
Director,
Division of Plant Operations.

FOREWORD

● This operating summary has been prepared in order to acquaint readers with the management of the project during 1967. The efficiency of the plant's operation is reflected in a general review. Significant financial details are recorded, and technical performance is illustrated by graphs and charts.

The summary should answer two salient questions. Are the project's facilities adequate at this time? And can the project meet future requirements?

The Regional Operations Engineer is primarily responsible for the preparation of the report, and will be pleased to answer any questions regarding it.

Most of the material for the graphs and charts was compiled by the statistics section of the Division of Plant Operations, with the final versions of the graphs being drawn by the draughting section of the Division of Sanitary Engineering. Cost data were provided by the Division of Finance.

It will be evident from the report that all of these groups co-operated with substantial success.

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SIDNEY TWP. (BATAWA)
water pollution control plant
operated for

THE TOWNSHIP OF SIDNEY (BATAWA)

by the

ONTARIO WATER RESOURCES COMMISSION

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Assistant Director: C. W. Perry
Regional Supervisor: P. J. Osmond
Operations Engineer: J. N. Dick

801 Bay Street Toronto 5

'67 REVIEW

The 1967 operating costs for the Township of Sidney Water Pollution Control Plant were \$7,313.53. This was a slight increase from the previous year due mainly to payroll costs. The average daily flow for the year was 216,000 gallons per day, well in excess of the design flow of 120,000 gallons per day. It should be noted that the flow readings presented are instantaneous flows and are obtained when the plant is inspected (usually in the morning).

In the early part of the year, the chlorinator was completely overhauled and new parts installed.

It was necessary to replace the seal in the effluent pump.

In December, 1967, the Chief Operator, Mr. J. Stewart, died after a long illness. A new part-time man was hired and it was proposed to hire a full-time man in the early part of 1968.

PROJECT COSTS

NET CAPITAL COST (Estimated)	\$162,152.89
DEDUCT - Portion Financed by CMHC (Estimated)	<u>109,605.08</u>
Long Term Debt to OWRC	\$ <u>52,547.81</u>
Debt Retirement Balance at Credit (Sinking Fund) December 31, 1967	\$ <u>8,723.10</u>
Debt Retirement	\$ 1,906.00
Reserve	1,006.06
Interest Charged	2,963.33
Net Operating	<u>7,313.53</u>
TOTAL	\$ <u>13,188.92</u>

RESERVE ACCOUNT

Balance at January 1, 1967	\$ 3,095.54
Deposited by Municipality	1,006.06
Interest Earned	<u>197.87</u>
	\$ 4,299.47
Less Expenditures	<u>-</u>
Balance at December 31, 1967	\$ <u>4,299.47</u>

MONTHLY OPERATING COSTS

MONTH	TOTAL EXPENDITURE	PAYROLL	FUEL	POWER	CHEMICAL	GENERAL SUPPLIES	REPAIRS & MAINTENANCE	* SUNDRY
JAN	392.75	209.33	95.51	67.67				10.24
FEB	508.38	268.12		69.70		20.47	67.40	62.11
MARCH	550.93	288.54	93.31	59.57	28.25	25.73		56.53
APRIL	569.13	202.07	151.18	60.25		18.63		66.14
MAY	584.39	314.14		54.17		41.79	36.57	71.72
JUNE	607.32	259.77	73.52	62.95		21.94	10.65	50.13
JULY	709.52	299.24	57.12	62.27	118.13	23.66		143.10
AUG	599.56	350.67		60.25		29.34	34.35	70.30
SEPT	545.56	344.39		56.87		19.38		75.45
OCT	566.54	250.11		67.67		43.78	62.40	40.76
NOV	818.75	286.05		54.85	116.13	39.93	29.93	241.65
DEC	810.60	401.29		64.30		10.58		200.50
TOTAL	7,313.53	3,553.72	821.86	740.52	264.51	296.23	350.88	1,286.55

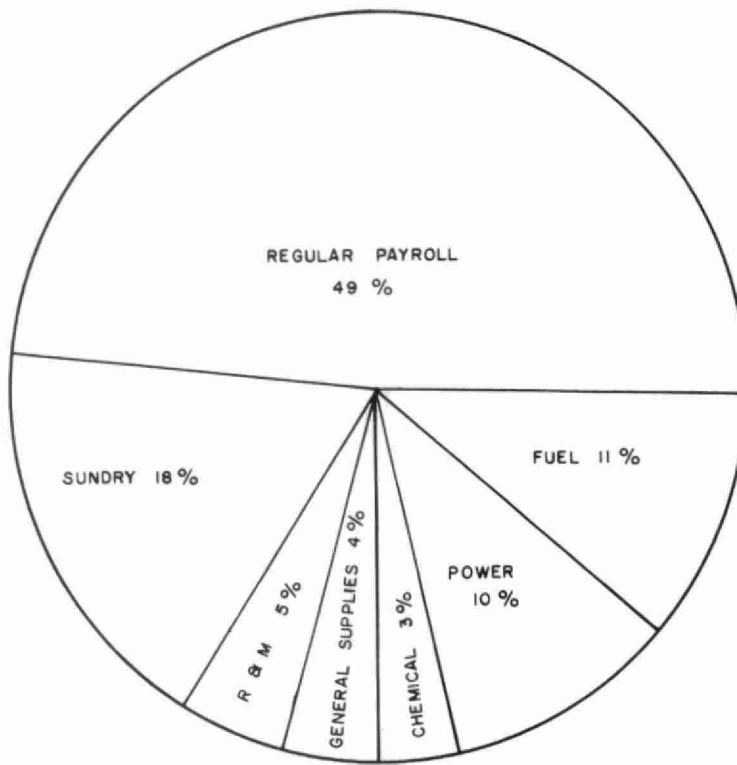
* SUNDRY INCLUDES SLUDGE HAULING COSTS WHICH WERE 231.66

YEARLY OPERATING COSTS

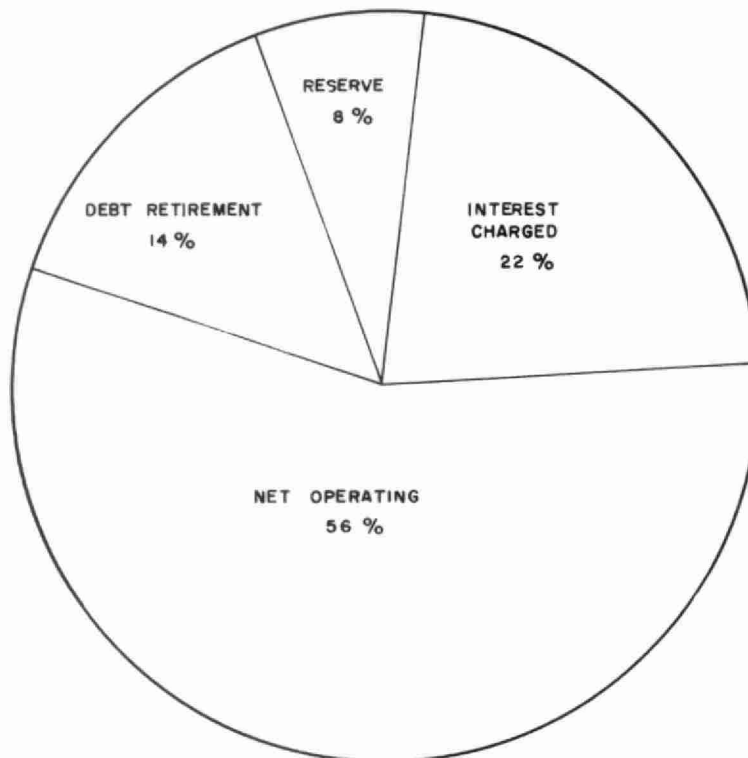
YEAR	M.G. TREATED	TOTAL COST	COST PER LB OF BOD REMOVED
1964	* 95.59	\$ 6,024.76	63.02
1965	11.53	7,677.10	95.93
1966	67.42	6,812.13	101.04
1967	78.97	7,313.53	92.61

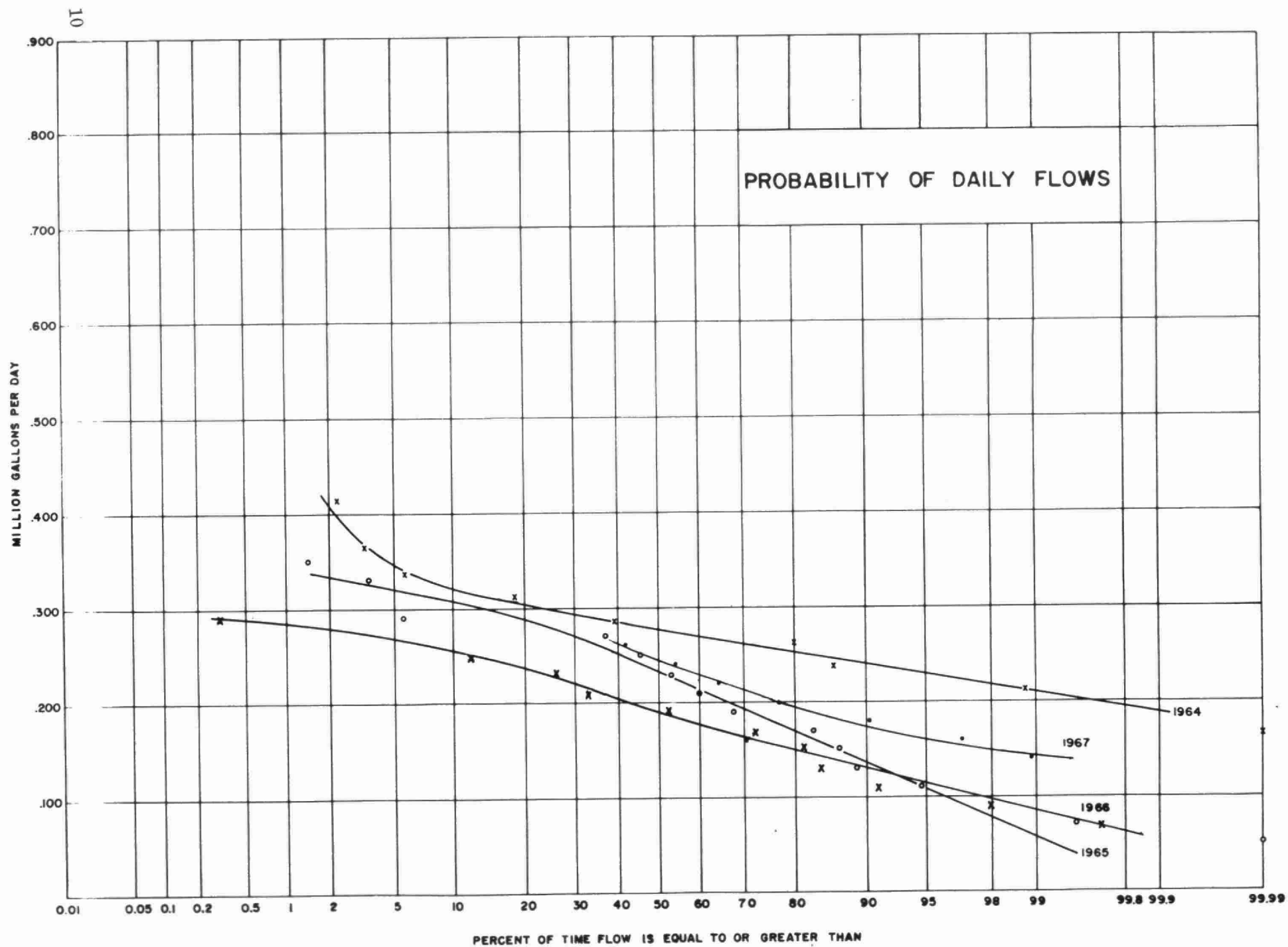
* PRORATED ON ESTIMATED FLOWS OCTOBER-DECEMBER

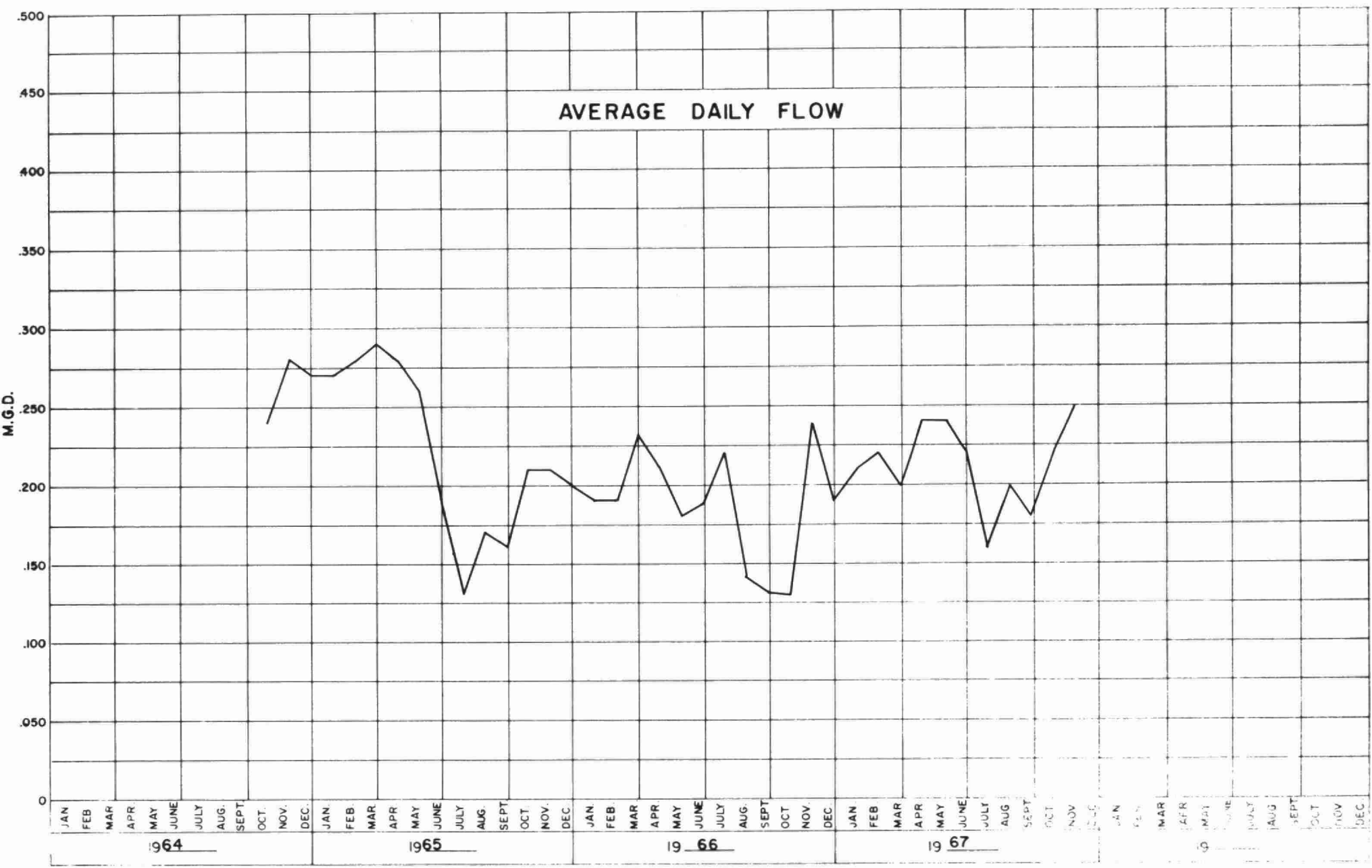
1967 OPERATING COSTS

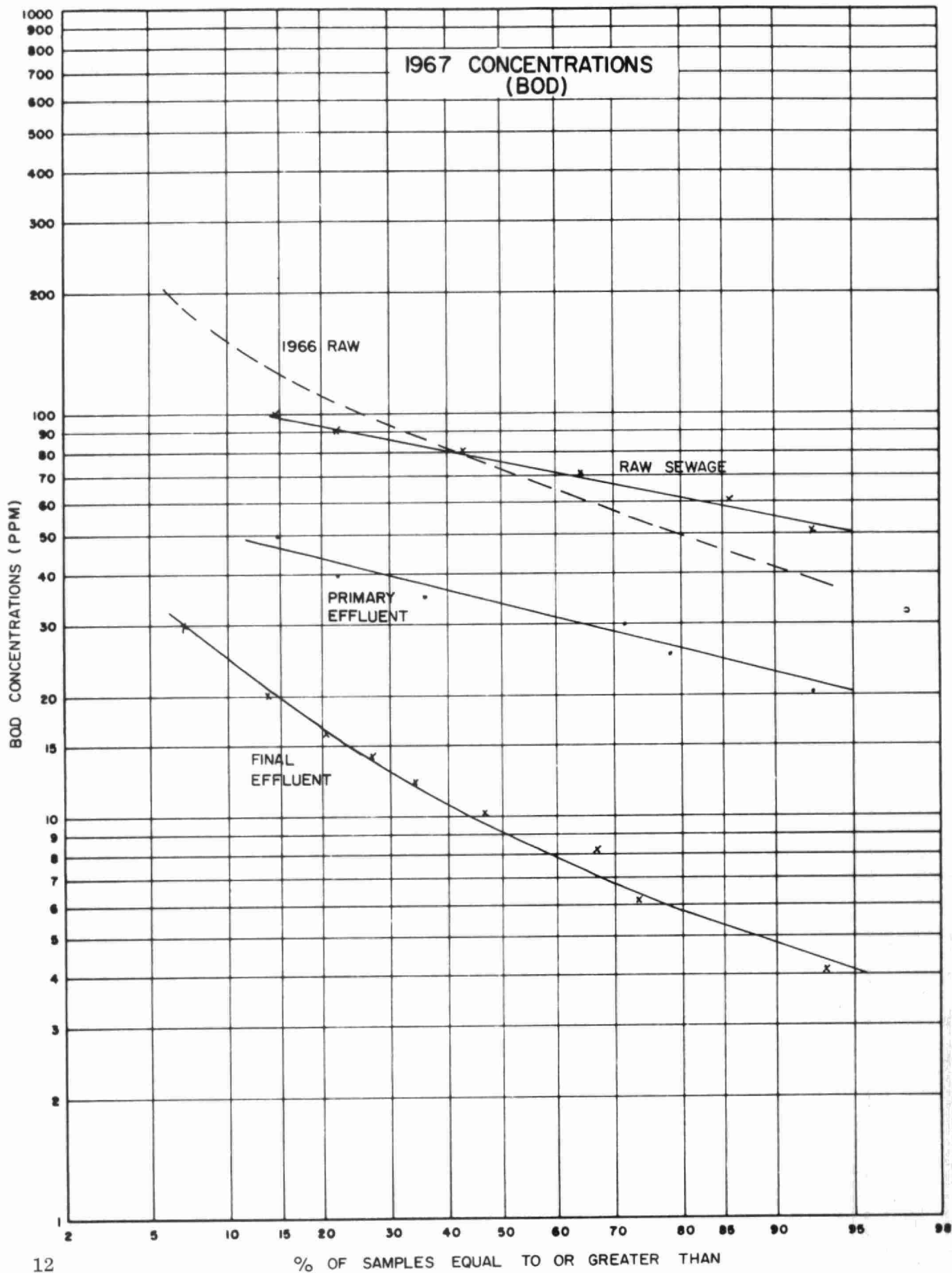


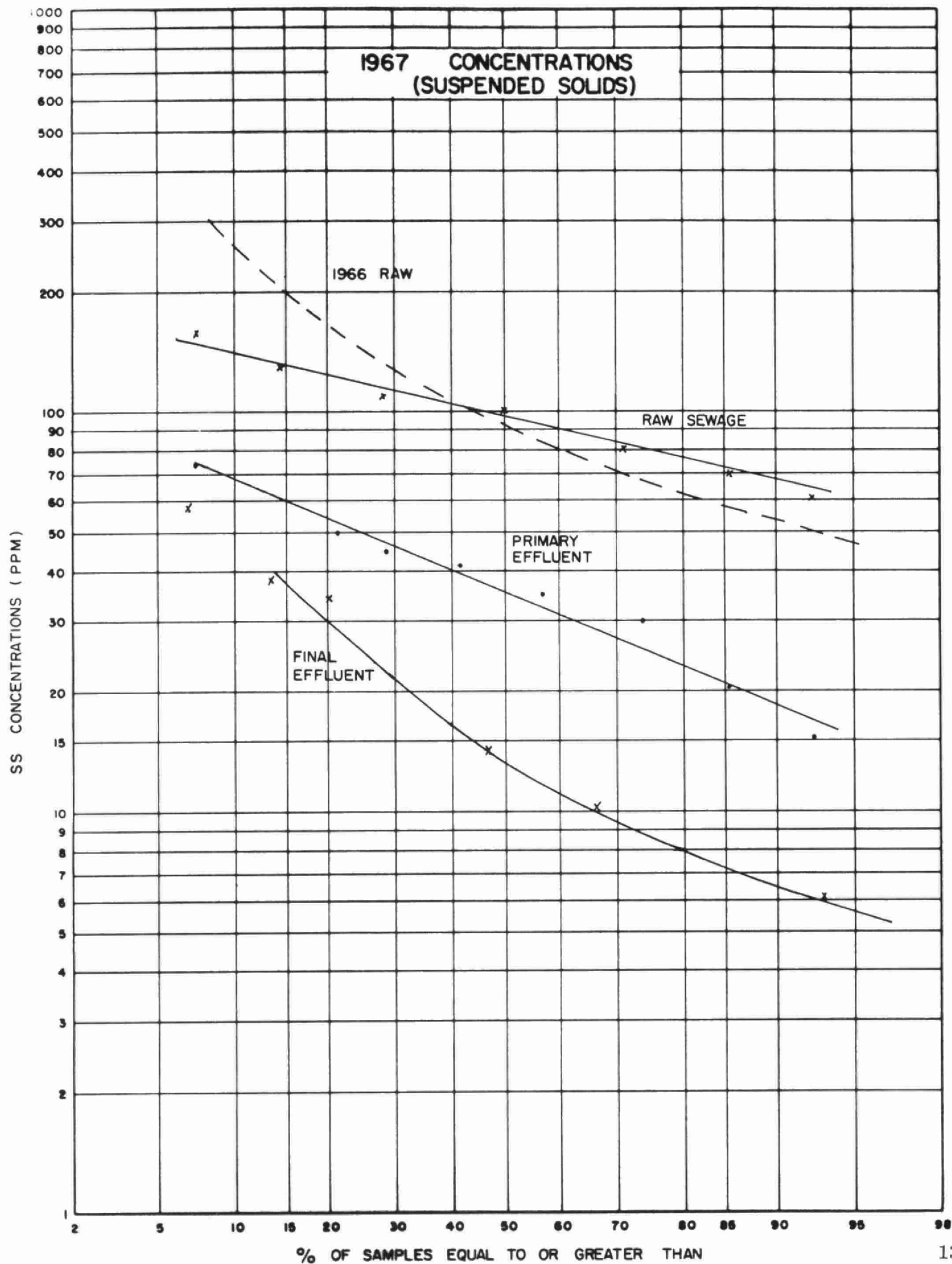
TOTAL ANNUAL COST

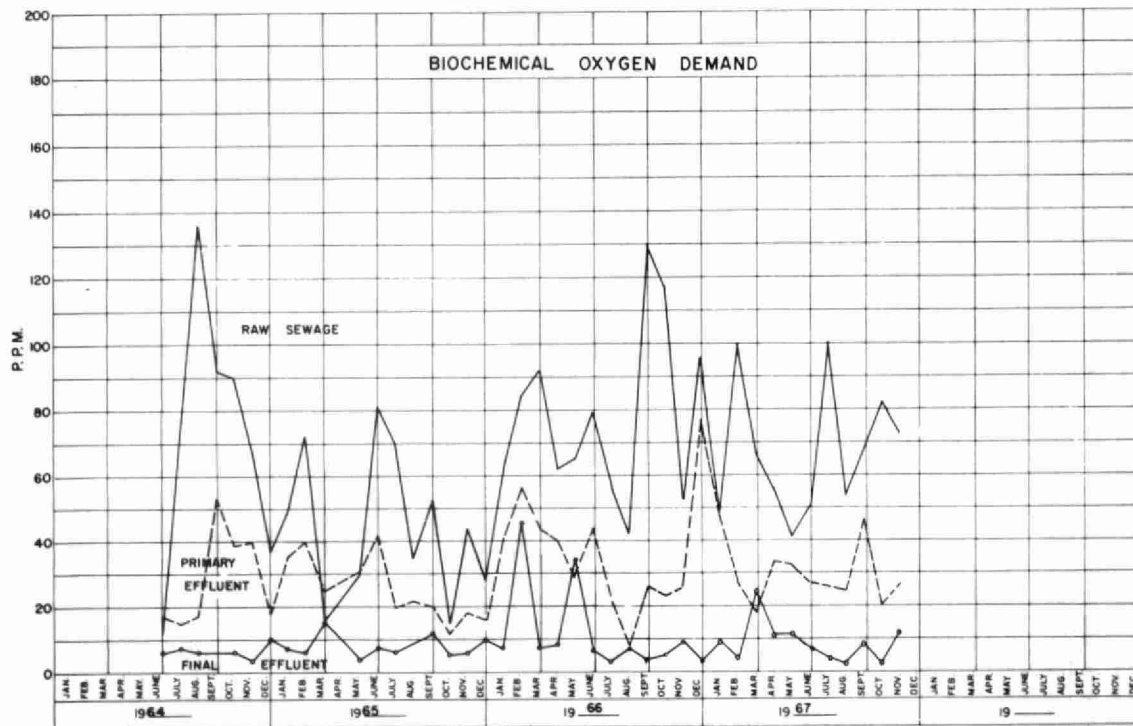




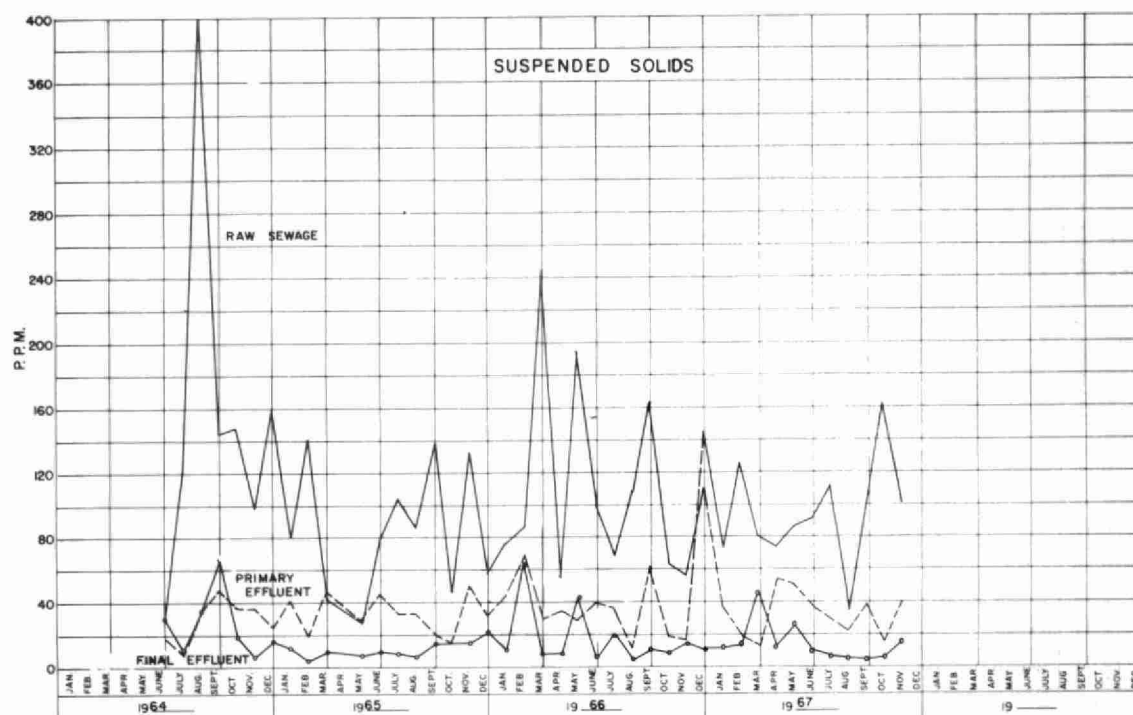








MONTHLY VARIATIONS



GRIT, B.O.D AND S.S. REMOVAL

MONTH	B. O. D.				S. S.				GRIT REMOVAL CU. FT.
	INFLUENT PPM.	EFFLUENT PPM.	% REDUCTION	TONS REMOVED	INFLUENT PPM.	EFFLUENT PPM.	% REDUCTION	TONS REMOVED	
JAN.	48	9.2	82.9	1.3	70	10	85.8	1.9	-
FEB.	100	4	96.0	3.0	124	11	91.1	3.5	-
MAR.	67	24	64.2	1.4	78	44	43.6	1.1	6
APR.	55	11.2	79.6	1.6	72	11	84.7	2.2	-
MAY	41	10.9	73.4	1.1	85	24	71.8	2.3	-
JUNE	50	6.7	86.6	1.4	90	9	90.0	2.6	4
JULY	100	3.6	96.4	2.4	110	5	95.4	2.6	-
AUG.	53	2.2	95.8	1.6	32	3	90.6	.9	5
SEPT.	-	8	-	-	-	2	-	-	-
OCT.	82	1.8	97.8	2.7	160	4	97.5	5.3	5
NOV.	72	12	83.3	2.6	100	13	87.0	3.3	6
DEC.	-	-	-	-	-	-	-	-	-
TOTAL	-	-	-	23.10	-	-	-	31.59	26
AVG.	67	8.5	85.6	1.93	92	12	83.8	2.63	2

COMMENTS

The average concentration of BOD and suspended solids in the plant influent was 67 and 92 ppm respectively. The plant effluent BOD and suspended solids concentrations were 8.5 and 12 ppm respectively. This resulted in a percent reduction in BOD of 87.3 and a percent reduction in suspended solids of 87.0. The results were obtained from ten, eight-hour composite samples gathered at the Batawa treatment plant and submitted to the Toronto laboratory for analysis. The BOD and suspended solids concentrations in the plant effluent were well within OWRC objectives. The total amount of grit removed in 1967 from the waste at the treatment plant was 26 cu. ft. A total of 23.1 tons of BOD and 31.6 tons of solids were removed from the waste during the year.

AERATION SECTION

MONTH	PRIM. EFFL B.O.D. PPM.	MLSS. PPM.	LBS. BOD. PER 100 LBS. M. L. S. S.
JANUARY	47	2300	11
FEBRUARY	27	2415	7
MARCH	18	2201	5
APRIL	33	852	26
MAY	32	1766	12
JUNE	27	1245	13
JULY	-	1921	-
AUGUST	24	2109	6
SEPTEMBER	46	1954	12
OCTOBER	20	1714	7
NOVEMBER	26	591	29
DECEMBER	-	692	-
TOTAL	-	-	-
AVERAGE	30	1646	13

COMMENTS

The average concentration of mixed liquor suspended solids in the aeration tanks was 1646 ppm. The loading on the aeration tanks, 13 pounds of BOD per 100 pounds of MLSS, is a low loading on the aeration section. The cubic feet of air used to remove one pound of BOD is not available at this plant, since the air requirements are used both for aeration and for sludge return. The ratio being used for each purpose cannot be determined.

DIGESTER OPERATION

MONTH	SLUDGE TO DIGESTERS			SLUDGE FROM DIGESTERS		
	GALLONS	% SOLIDS	% VOL. MAT	GALLONS	% SOLIDS	% VOL. MAT
JAN.	28080	1.37	-	-	4.18	-
FEB.	23520	.78	-	-	4.24	-
MAR.	28800	2.10	80.00	-	3.68	62.22
APR.	23280	-	-	15000	-	-
MAY	28560	1.10	74.50	-	2.35	62.98
JUNE	68880	2.79	73.48	-	2.19	67.12
JULY	35280	2.99	72.54	5000	3.97	60.20
AUG.	36040	2.90	64.48	-	5.28	52.84
SEPT.	28800	1.19	72.26	-	3.56	55.37
OCT.	28520	-	-	-	-	-
NOV.	21600	2.09	-	7000	4.10	-
DEC.	20280	-	-	-	-	-
TOTAL	371640	-	-	27000	-	-
AVG.	30970	1.92	72.88	9000	3.73	60.12

COMMENTS

A total of 371,640 gallons of raw sludge was pumped to the digester for further breakdown of organic solids. The raw sludge had an average total solids concentration of 1.92 percent and an average total volatile solids concentration of 72.88 percent of 1.92 percent, i. e., 1.4 percent.

A total of 27,000 gallons of sludge was hauled from the digester in 1967. This digested sludge contained a total solids concentration of 3.73 percent and a volatile concentration of 2.2 percent.

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RECOMMENDATIONS

The recommendations for Sidney Township (Batawa) Water Pollution Control Plant remain the same as for the previous year, i.e.,

It is recommended that the municipality make every effort to decrease the filtration to the sewer system.

It is recommended that the flow meter be incorporated into the plant so that more accurate count of flows reaching the plant is available.

